

Title (en)
SYNCHRONOUS LINEAR DRIVE WITH ELECTROMAGNETIC ENERGY TRANSFER

Title (de)
SYNCHRON-LINEARANTRIEB MIT ELEKTROMAGNETISCHER ENERGIEÜBERTRAGUNG

Title (fr)
ENTRAÎNEMENT LINEAIRE SYNCHRONE A TRANSMISSION D'ENERGIE ELECTROMAGNETIQUE

Publication
EP 0608242 B1 19981118 (DE)

Application
EP 92916877 A 19920807

Priority

- DE 4126454 A 19910809
- EP 9201804 W 19920807

Abstract (en)
[origin: DE4126454A1] In a synchronous linear motor, a field of travelling waves is generated in individual sections (SA, SB, SC) of a long stator opposite to an exciter part (EE) located on a vehicle. The field of travelling waves cooperates with the field generated in the exciter winding (EE) by direct current supply, so as to move forward the vehicle. The alternative current supplied to the stator section in order to generate the field of travelling waves induces practically no voltage in the exciter winding. In order to ensure an inductive energy transfer, a higher-frequency alternative current is superimposed on the alternative current available to generate the field of travelling waves. The higher-frequency alternative current induces a high-frequency voltage in the exciter winding that can be considered as the secondary winding of a transformer comprising the stator winding and the exciter winding. The high-frequency voltage can be decoupled by means of a passive or active rectifier (GE). This energy is available for auxiliary devices arranged in the vehicle and/or for supplying direct current to the exciter winding (EE).

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IPC 8 full level
B60L 13/03 (2006.01); **B60L 15/00** (2006.01); **H02K 41/03** (2006.01)

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Cited by
CN113708594A; US8827058B2; US8544622B2; US8360216B2; US8590682B2

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DE

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DE 4126454 A1 19930211; DE 59209567 D1 19981224; EP 0608242 A1 19940803; EP 0608242 B1 19981118; WO 9302888 A1 19930218

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